

Appl. No. 09/766,275  
Amdt. Dated December 29, 2003  
Reply to Office Action of October 9, 2003

**•• REMARKS/ ARGUMENTS ••**

The Official Action of October 9, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment, claims 1, 3 and 6 have been changed to correct some minor matters which, for the most part, make the language of the claims commensurate.

Entry of the changes to the claims is respectfully requested.

Claims 1-6 are pending in this application.

Claims 4 and 5 have been withdrawn by the Examiner as being directed to a non-elected invention.

Claims 1-3 and 6 stand provisionally rejected under 35 U.S.C. §102(e) as being anticipated by copending application serial No. 09/613,814.

Claims 1-3 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,681,645 to Strack et al. in view of U.S. Patent No. 5,116,662 to Morman.

Claims 1-3 and 6 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending application serial No. 09/613,814.

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For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art of record and therefore, each of the outstanding prior art rejections of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

With regard to the rejection of claims 1-3 and 6 under 35 U.S.C. §102(e), the Examiner has stated that:

It is the Examiner's position that the elastically stretchable sheet of a fibrous assembly appears to be indistinguishable from the claims of the instant invention.

With regard to the obviousness-type double patenting rejection of claims 1-3 and 6 the Examiner has taken the position that:

...it would have been obvious...to adjust the correspondence of the relative binding spots of the elastic sheet in reference to the inelastic fibrous sheet so that the bonding zones (similar to binding spots) would be expected to improve the similar properties of flexibility, see abstract.

Independent claims 1 and 6 of the present application each require an inelastically stretchable fibrous assembly or web that includes component fibers comprising:

...ethylene/propylene copolymer containing ethylene at 0.5 - 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10 % by weight and butene at 0.5 - 15 % by weight, or a mixture thereof at 100 - 10 % by weight.

Even though copending application serial No. 09/613,814 mentions that fibers 6 of the inelastically stretchable upper layer 2 can be made of an inelastic synthetic resin such as polypropylene, ethylene-propylene random copolymer, ethylene-propylene-butene random

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copolymer, polyester or polyethylene, there is no mention or suggestion of using an ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture thereof at 100 ~ 10 % by weight.

According to the present invention, applicants have discovered that by making the inelastically stretchable fibrous assembly from fibers that comprise ethylene/propylene copolymer containing ethylene at 0.5-10 % by weight, ethylene/propylene/butene containing ethylene at 0-5-10 % by weight and butene at 0.5-15 % by weight, or mixtures thereof at 100-10 % by weight, improvements in the touch of the inelastic fibrous layer are achieved together with improvements in the heat-sealing of the elastic layer and the inelastic fibrous layer.

Copending application serial No. 09/613,814 does not suggest or teach improvements or any benefits associated with the particular copolymers disclosed and claimed in the present application.

Accordingly, copending application serial No. 09/613,814 neither anticipates the invention set forth and claimed in the present application nor renders the present invention obvious.

Copending application serial No. 09/613,814 does not even set forth any working examples upon which the Examiner can rely as suggesting any particular ratio of the individual copolymer components or any related results or improvements as disclosed in the present application.

It is accordingly submitted that copending application serial No. 09/613,814 cannot be relied upon under 35 U.S.C. §102(e) as anticipating applicants' claimed invention nor under the judicially created doctrine of obviousness-type double patenting.

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It is noted that the obviousness-type double patenting rejection is based upon the Examiner's position that it would have been obvious to "adjust the correspondence of the relative binding spots of the elastic sheet in reference to the inelastic fibrous sheet."

This position does not address or overcome the fact that copending application serial No. 09/613,814 does not teach or suggest the particular ratios of the individual copolymer components disclosed and claimed by applicants.

The Examiner has relied upon Strack et al. as describing a laminate material with stretchability and recovery, breathability and barrier properties that comprises a nonwoven elastomeric web having at least one web of textile material discontinuously bonded to each side.

The Examiner states that Strack et al. describes the laminate as comprising at least two textile webs, a non-elastic textile web with stretch and recovery characteristics, and a textile web with nonwoven elastomeric properties.

The Examiner states that Strack et al. describes the various kinds of elastomeric web materials and the use of adhesive which laminates the webs together so that the elasticity of the laminate will not be "interfered, i.e., interfere with recovery."

The Examiner has further relied upon Strack et al. as describing the "use of the laminate, garment with thermal insulation and a dirt barrier to protect the wearer, while having breathability for comfort."

The Examiner concedes that Strack et al. is silent about orthogonal stretchability and amounts of the components of the ethylene polymer.

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The Examiner has accordingly relied upon Morman as describing a multi-direction stretch composite elastic material including at least one elastic sheet which according to the Examiner "means that the sheet is elongated about 60%, i.e. stretched." The Examiner notes that Morman "describes 'nonelastic' as not falling in the definition of elastic."

The Examiner further notes that Morman "describes a composite material which refers to at least one sheet which is stretched and one necked (non-elastic) material, which are joined together in at least three locations corresponding to the instantly claimed binding spots."

In combining the teachings of Strack and Morman, the Examiner takes the position that:

It would have been obvious...to modify Strack with the web material of Morman so that the necked material, see Figure 2B, that the binding spots correspond between the sheet and the fibrous assembly and are similar in effect to the bonding locations of the two layers of elastic and non-elastic sheet motivated with the expectation that improved properties of resilient and stretch and recover, (column 4, lines 67-68), are evident when the binding spots overlap.

On page 6 of the Official Action the Examiner states that

It is the Examiner's position that the invention taken as a whole would be obvious to one of ordinary skill in the art especially since there is no clear evidence supplied by applicant to support applicant's discussion of page 6 of the remarks of the response.

On page 6 of applicants' Amendment filed June 25, 2003, applicants submitted the following:

*Strack teaches that laminated material has an improved recovery after being stretched. At column 6, lines 10-14 Strack teaches that:*

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*...after bonding, the laminate material can be stretched as much as the knit, woven or scrim web can be stretched, with the nonwoven elastomeric web providing power recovery retraction force upon relaxation of the stretching of the laminate.*

*In effect, Strack utilizes the elastomeric web to impart recovery to the nonelastic material.*

*In contrast to Strack, applicants' invention involves bonding an elastic sheet to a fibrous assembly and thereafter stretching the resulting composite sheet to the point of changing the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet.*

*Strack does not teach, suggest or contemplate stretching the laminate material in any manner that would change its elastic stretchability, particularly its recoverability.*

*Applicants' invention on the other hand involves stretching the composite sheet to the point where the fibers in the fibrous assembly break apart from one another and are stretched until their dimensions change as discussed in detail in the paragraph bridging pages 15 and 16 of applicants' specification.*

*Strack does not suggest such a process or the resulting composite sheet.*

It is not understood what the Examiner means when he states that there is "no clear evidence" that supports the above remarks.

The facts (which do not need additional extrinsic evidence to support them) are that:

1) Strack et al. does not teach first bonding the assembly together and thereafter stretching the composite assembly to the point of changing the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite assembly.

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2) **Morman** discloses that the necked material is joined to an elongated elastic sheet which is thereafter relaxed - after the joining process.

From these teachings, the Examiner has to establish that the combination of **Strack et al.** and **Morman** render obvious all the limitations of the rejected claims including:

[for claim 1]:

An elastic stretchable sheet and

a fibrous assembly jointed to the elastic stretchable sheet,

wherein the fibrous assembly:

- a) comprises a plurality of fibers and having an inelastic stretchability;
- b) is joined to said elastic stretchable sheet at binding spots;
- c) is stretched after being joined to the elastic stretchable sheet so as to change the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet;
- d) comprises component fibers of ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture thereof at 100 ~ 10 % by weight.

[for claim 6]:

A stretchable composite sheet obtained by:

- a) providing a first web made of a thermoplastic synthetic fiber that is:
  - i) inelastically stretchable in one direction and

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ii) formed from fibers that comprise ethylene/propylene copolymer containing ethylene at 0.5-10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 - 10 % by weight and butene at 0.5-15 % by weight, or mixtures thereof at 100-10 % by weight and having a breaking extension of at least 150 %;

b) providing a second web made of thermoplastic resin that is elastically stretchable by at least 80% in at least in said one direction

c) continuously feeding said first web in said one direction;

d) continuously feeding said second web in said one direction and placing said second web upon said first web;

e) joining said first and second webs having been placed upon each other in step d) to each other intermittently in said one direction and in the direction orthogonal to said one direction, at least in said one direction to form a composite web;

f) stretching said first and second webs after they have been joined to each other in step e) in said one direction and said direction orthogonal to said one direction, at least in said one direction within an elasticity limit of said second web and within a breaking extension of said first web so as to change the dimensions of the fibers in the first web and the elastic stretchability of the composite web; and

g) allowing said first and second webs having been stretched in step f) contract to obtain said composite sheet.



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Strack et al.'s failure to teach first bonding the assembly together and thereafter stretching the composite assembly to the point of changing the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite assembly and Morman's teaching that the necked material is joined to an elongated elastic sheet which is thereafter relaxed - after the joining process, preclude the Examiner from combining the teaches of these references in any "obvious" manner that meets all the limitations of independent claims 1 and 6 as listed above.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

Moreover, the Examiner cannot rely upon copending application serial No. 09/613,814 as anticipating the present invention under 35 U.S.C. §102(e) or under doctrine of obviousness-type double patenting.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

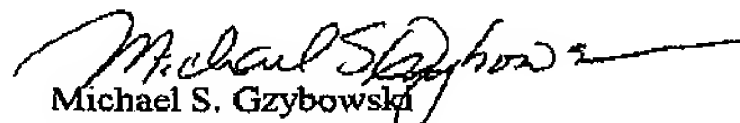
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It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,

  
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